

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference 1.297.001 wo	FOR FURTHER ACTION		See item 4 below
International application No. PCT/NL2005/000145	International filing date (<i>day/month/year</i>) 28 February 2005 (28.02.2005)	Priority date (<i>day/month/year</i>) 02 March 2004 (02.03.2004)	
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237			
Applicant PEX, Franciscus, Antonius, Maria			

1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 *bis*.1(a).
2. This REPORT consists of a total of 9 sheets, including this cover sheet.

In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.

3. This report contains indications relating to the following items:

- | | | |
|-------------------------------------|--------------|---|
| <input checked="" type="checkbox"/> | Box No. I | Basis of the report |
| <input checked="" type="checkbox"/> | Box No. II | Priority |
| <input type="checkbox"/> | Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability |
| <input checked="" type="checkbox"/> | Box No. IV | Lack of unity of invention |
| <input checked="" type="checkbox"/> | Box No. V | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/> | Box No. VI | Certain documents cited |
| <input type="checkbox"/> | Box No. VII | Certain defects in the international application |
| <input type="checkbox"/> | Box No. VIII | Certain observations on the international application |

4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No. +41 22 338 82 70	Date of issuance of this report 05 September 2006 (05.09.2006) Authorized officer <p style="text-align: center; font-weight: bold;">Nora Lindner</p> e-mail: pt02@wipo.int
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PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

REC'D 04 AUG 2005

WIPO PCT PCT

To:

see form PCT/ISA/220

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/NL2005/000145

International filing date (day/month/year)
28.02.2005

Priority date (day/month/year)
02.03.2004

International Patent Classification (IPC) or both national classification and IPC
H05B37/02, H02J13/00, H01R13/46

Applicant
PEX, Franciscus A. M.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☒ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☒ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/NL2005/000145

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material:
 - ☐ in written format
 - ☐ in computer readable form
 - c. time of filing/furnishing:
 - ☐ contained in the international application as filed.
 - ☐ filed together with the international application in computer readable form.
 - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

Box No. II Priority

1. ☐ The validity of the priority claim has not been considered because the International Searching Authority does not have in its possession a copy of the earlier application whose priority has been claimed or, where required, a translation of that earlier application. This opinion has nevertheless been established on the assumption that the relevant date (Rules 43*bis*.1 and 64.1) is the claimed priority date.
2. ☒ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43*bis*.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.
3. Additional observations, if necessary:

see separate sheet

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/NL2005/000145

Box No. IV Lack of unity of invention

1. ☐ In response to the invitation (Form PCT/ISA/206) to pay additional fees, the applicant has:
- ☐ paid additional fees.
 - ☐ paid additional fees under protest.
 - ☐ not paid additional fees.
2. ☐ This Authority found that the requirement of unity of invention is not complied with and chose not to invite the applicant to pay additional fees.
3. This Authority considers that the requirement of unity of invention in accordance with Rule 13.1, 13.2 and 13.3 is
- ☐ complied with
 - ☒ not complied with for the following reasons:
see separate sheet
4. Consequently, this report has been established in respect of the following parts of the international application:
- ☐ all parts.
 - ☒ the parts relating to claims Nos. 1-15

Box No. V Reasoned statement under Rule 43b/s.1(a)(i) with regard to novelty, Inventive step or Industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	2,3,8,9,12,13,15
	No: Claims	1,4-7,10,11,14
Inventive step (IS)	Yes: Claims	8
	No: Claims	1-7,9-15
Industrial applicability (IA)	Yes: Claims	1-15
	No: Claims	

2. Citations and explanations

see separate sheet

Re Item II

Priority

The subject-matter of claims 15-19 was not included in the priority document NL1025613 (02.03.2004) and consequently the international filing date for subject-matter of these claims will be the filing date of the PCT application (28.02.2005) and not the priority date (Rule 64.1 PCT).

Re Item IV

Lack of unity of invention

2. The application lacks unity within the meaning of Rule 13.1 PCT for the following reasons:

2.1 According to Rule 13.1 PCT, "The International application shall relate to one invention only OR to a group of inventions so linked as to form a single general inventive concept".

This is further clarified in Rule 13.2 PCT, which details that "the requirement for unity of invention shall only be fulfilled when there is a technical relationship among those inventions involving one or more of the same corresponding special technical features that defines a contribution which each of the claimed inventions, considered as a whole makes over the prior art".

2.2 A priori, the only feature, of the present application, which appears capable of being the special technical feature, is:

Remotely controllable switching unit for switching of mains voltage of an electrical installation, the switching unit comprising:

an electrically controllable switch:

a control circuit for controlling the switch;

a receiver circuit connected to the control circuit for receiving wireless signals,

wherein the switching unit is adapted to be mounted in the housing of a wall socket

To decide whether this technical feature is the special technical feature, we must apply the teaching of Rules 13.1 and 13.2 PCT, which stipulate that the technical feature must define a contribution over the prior art to be recognised as the special technical feature (which gives rise to unity).

For the purposes of unity, a single general inventive concept is required. This means that the broadest possible problem to be solved has to be drawn up (i.e. to cover all claimed possibilities). Thus, by definition, the provisos may not be taken into account when determining the presence or lack of unity, since the special technical feature must define a contribution over these provisos as well.

- 2.3 It is considered that the problem to be solved by the present application is (as stated in the preamble on page 1): *the visual unattractiveness associated with wireless remote controlled switches and dimmers that are interposed between a wall socket and a load.*

The way the Applicant solves this problem is by using *a remotely controllable switching unit for receiving wireless signals, wherein the switching unit is adapted to be mounted in the housing of a wall socket.*

- 2.4 The following documents are cited here :
D1: US 2003/041226 A1 (SHIH CHING HSIANG ET AL) 27 February 2003 (2003-02-27)

D1 discloses an electronic switch integrated into a wall socket and controllable with a wireless remote controller (see paragraphs 15,16, 22 and figures 1,3,4).

Thus the electronic switch of D1 solves the problem in an identical manner to the present application. Thus in the light of the document D1, the solution proposed in the present application, to the problem mentioned above, namely the provision of a *switching unit mounted in the housing of a wall socket* is known from the prior art. Thus the use of these features cannot be regarded as the special technical feature which links together the separate inventions disclosed in the present application.

Since there are no apparent features which may be regarded as the special technical feature, which could link the different inventions of the application, then there is a lack of unity.

2.5 In the light of the above, the examiner has identified, a posteriori, 4 different subjects:

Claims 1-15

remotely controllable switching unit for switching of mains voltage of an electrical installation, the switching unit comprising:
an electrically controllable switch;
a control circuit for controlling the switch;
a receiver circuit connected to the control circuit for receiving wireless signals, wherein the switching unit is adapted to be mounted in the housing of a wall socket; additionally the switching unit has a predetermined dimension (less than 32 mm deep) and shape (cylindrical).

The additional features relate to mechanical adaptations for a (built-in) wall socket. Furthermore, claims 1-15 appear to include several more ideas not linked by a general inventive concept, but as all these claims have been searched, the non-unity objection will not be extended to all of the other non-unitary subject-matter (see for example the actuator of claim 4, the female part of claim 5, the dimmer of claim 7, the load testing of claim 8, and network function of claim 9).

Claim 16

the switching unit of claim 1, additionally having a power supply comprising: a capacitor connected to the mains during a short interval after the mains voltage zero crossing.

The additional features relate to an efficient and compact low voltage power supply for the control circuit.

Claim 17

the switching unit of claim 1, additionally having a relay for connection and disconnection of the contact pins and the mains connection terminals.
The additional features relate to a specific choice of a switching component.

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING
AUTHORITY (SEPARATE SHEET)**

International application No.

PCT/NL2005/000145

Claims 18 and 19

the switching unit of claim 1, additionally having a power metre for measuring the power supplied to the load.

The additional features relate to telemetering and status indication.

2.6 The number of subjects of the non-unity is kept to a minimum with due regard for the teaching of T110/82 (OJ EPO 1983, 274-281) concerning the balance between :

- a rational procedure up to grant in which interconnected matter should not be needlessly split, nor non-related inventions lumped together for the purpose of saving fees

- and an equitable levying of fees, especially in respect of search, since the expense must be borne by the fees levied for other applications.

This does not mean that were any or all of the further subjects elected for further processing that further non-unities may not be formulated, based on the subsequent prior art retrieved. Moreover, other objections with regard to clarity, support of disclosure and so forth may also be raised, resulting in (an) incomplete search(es).

Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Reference is made to the following documents:

D1: US 2003/041226 A1 (SHIH CHING HSIANG ET AL) 27 February 2003 (2003-02-27)

D2: US-A-5 905 442 (HAUSMAN JR DONALD F ET AL) 18 May 1999 (1999-05-18)

D3: FR-A-2 724 776 (ARNOULD FABRIQUE D'APPAREILLAGE ELECTRIQUE) 22 March 1996 (1996-03-22)

2. INDEPENDENT CLAIM 1

- 2.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 is not new in the sense of Article 33(2) PCT.
Document D1 discloses (the references in parentheses applying to this document):
Remotely controllable switching unit for switching of mains voltage of an electrical installation, the switching unit comprising:
an electrically controllable switch;
a control circuit for controlling the switch;
a receiver circuit connected to the control circuit for receiving wireless signals,
wherein the switching unit is adapted to be mounted in the housing of a wall socket
(see paragraphs 15,16, 22 and figures 1,3,4).
- 2.2 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 is not new in the sense of Article 33(2) PCT.
Document D2 discloses (the references in parentheses applying to this document): all the features of claim 1 (see the abstract and figures 1-4).
3. **DEPENDENT CLAIMS 2-7, 9-15**
Dependent claims 2-7, 9-15 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step (Article 33(2) and (3) PCT). Documents D2 and D3 cover the additional features of claims 9,12,13 and 2,3,15 respectively.
4. **DEPENDENT CLAIM 8**
Dependent claim 8 appears to contain features which, in combination with the features of claims 1 and 7 to which it refers, meets the requirements of the PCT in respect of novelty and inventive step (Article 33(2) and (3) PCT).